Mud Creek (0611C) Recreational Use Attainability Analysis Summary and Recommendation

A recreational use attainability analysis (RUAA) was conducted on Mud Creek (0611C) in the summer of 2014 to determine the appropriate recreational use and numeric criteria. Mud Creek is an unclassified perennial water body that is approximately 56 miles in length. The creek is located in Smith and Cherokee counties. It was identified in the 2014 Texas Clean Water Act Section 303(d) List of Impaired Water Bodies due to elevated bacteria levels. It was initially listed in 2010.

The RUAA identified that the presumed use of primary contact recreation (PCR) for Mud Creek should be revised to secondary contact recreation 1 (SCR 1). SCR applies to water bodies where water recreation can occur, but the nature of the recreation does not involve a significant risk of ingestion. SCR 1 applies to intermittent and perennial freshwaters where site-specific information demonstrates that primary contact recreation has little to no likelihood of occurring due to physical characteristics of the water body such as shallow depths or lack of pools.

During the field surveys, field staff observed two people fishing. None of the interviewees reported PCR as a personal, observed, or heard of use on Mud Creek. There was one instance of an adult wading. Reasons cited for not using the stream for recreation included: lack of access, difficult access, and fenced private property. Interviewees mentioned that nearby lakes provide better opportunities for recreation. Mud Creek had an average thalweg of 1.1 meters (43.30 in) and one pool deeper than 1 meter. Stream flow was normal during both surveys. The Palmer Drought Severity Index (PDSI) indicated slightly wet conditions during both field surveys. There was one crude boat launch along the stream. There are no public parks on the stream; however, there is a private ATV-only park. Many of the sites were at road crossings, but in most of these locations, private property boundaries generally limited access to directly around and underneath road crossings. The remaining sites required access onto private property. Access down the stream bank was moderately difficult in most locations due to steep banks, dense vegetation, muddy stream bottoms, and instream obstructions.

Steep banks, muddy bottoms, and limited access decrease the likelihood of PCR use. Mud Creek has access limitations and no accounts of PCR, supporting reclassification to SCR1. In accordance with §307.4 (j)(3)(C) of the Texas Surface Water Quality Standards, the TCEQ recommends a reclassification from PCR to SCR1 with the corresponding geometric mean of 630 colonies *E. coli*/100mL for all of Mud Creek, from the confluence with the Angelina River upstream to a point immediately upstream of the confluence of Prairie Creek in Smith County. This reclassification is appropriate due to "physical conditions related to the natural features of the water body" in accordance with reasons specified in 40 CFR §131.10(g)(5).

Prior to changing the currently assigned recreational use of Mud Creek in the Texas Surface Water Quality Standards, the TCEQ would provide additional public notice and opportunity for public comment. In addition, the U.S. Environmental Protection Agency would review this proposed change under the provisions of the federal Clean Water Act.